



5.3 Directory

Bright Pattern Documentation

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Table of Contents

Table of Contents	2
Directory Overview	3
Sections	3
Softphones	3
Screen Properties	4
Phone tab	4
Number	5
Phone registers dynamically as	5
Forwarding tab	5
Call forwarding settings	5
Hardphones	5
Requirements	6
Configuration and Setup	6
Screen Properties	7
Phone tab	7
Number	7
Caller ID	7
MAC address	7
Phone registers dynamically as	7
Authentication tab	8
Username	8
New Password	8
Confirm password	8
Generate password	8
Forwarding tab	8
General information	8
Forward all calls for ext...	8
to	8
Forward No Answer timeout	8
Access Numbers	9
How to Associate a Selected Access Number with a Scenario	10
How to Associate a Selected Access Number with an Extension (the DID Function)	10
How to Attach a Prefix to an Access Number When It Is Used As a Caller ID	10
How to Associate a Range of Access Numbers with a Range of Extensions	10
Dial-out Entries	11
Dial-Out Entries	12
Digits	12
Is a prefix	12
Remove prefix	12
Insert prefix	12
Set service	13
Transfer trunk trombone calls using SIP REFER	13
Use customer party number on transfers and consult calls	13
Direct mapping of internal phones	13
Use Caller ID from service configuration if service information is available, otherwise use this number	13
Append *<extension> to caller ID	13
Static Entries	14
Static Entries Screen Properties	14
Name	14
Type	14
Destination	14
Directory folder	15
Limiting Static Entries	15
Special Numbers	17
Special Numbers Screen Properties	17
Name	17
Number	17
Mute IVR toward agent when conferenced	17
Mute DTMF toward agent when conferenced	17

Directory Overview

In the Contact Center Administrator application, Directory is the section dedicated to telephony, including softphone, hardphone, and access numbers configuration. Additionally, you are able to create internal and external directories for your Agent Desktop users, which allow you to define what users have access to what contacts.

Sections

The following is a list of sections found in the Contact Center Administrator application, section Directory.

- [Softphones](#)
- [Hardphones](#)
- [Access Numbers](#)
- [Dial-out Entries](#)
- [Static Entries](#)
- [Special Numbers](#)

The screenshot displays the 'Softphones >> 1002 >> Properties' configuration page. On the left, a navigation sidebar lists various sections under 'Directory', with 'Softphones' selected. The main area is divided into a table of 11 entries and a properties panel. The table lists phone numbers and their corresponding users. The properties panel shows details for the selected number 1002, including the user 'Ayumi Ono' and the phone registers dynamically as '1002@ess-sip.brightpattern.com'. At the bottom right, there are 'Apply' and 'Reset' buttons.

Number	User
1000	Liza Smith
1001	Gina Vasquez
1002	Ayumi Ono
1003	Michael Carter
1004	Fatima Ali
1005	Lakesha Maraj
1006	Yuri Nikulin
1007	Harry Kim
1008	Beverly Crusher
1009	Rom Nagus
1010	Tracy Katz

Number: 1002 [Ayumi Ono](#)

Phone registers dynamically as: 1002@ess-sip.brightpattern.com

Apply Reset

Directory overview

Softphones

A softphone is a software program for handling telephone calls using the networking and sound processing capabilities of a general purpose computer. In VoIP systems, a softphone application is associated with a user at the moment of login, and it is identified by the user's name and extension number for the duration of the login session.

When a new [user](#) is created in the system, a softphone extension number is assigned to the user automatically. The extension number can be used for making direct calls to this user when numeric input is preferred or when it is the only way to make a call (e.g., dialing the extension number from a simple hardphone or entering it through an interactive voice (IVR) system). Note that the softphone extensions are recycled (i.e., when you remove a user from the configuration, the user's extension number becomes available for assignment to another new user). All forwarding options of such a recycled softphone extension will be reset to their default values.

In Bright Pattern Contact Center, the softphone functions are implemented in the Agent Desktop Helper Application component, which is an integral part of the [Agent Desktop](#). This component is installed on the computers of all users of the Agent Desktop application. For more information about the functions of this component and methods of its installation, see section [Agent Desktop Helper Application](#).

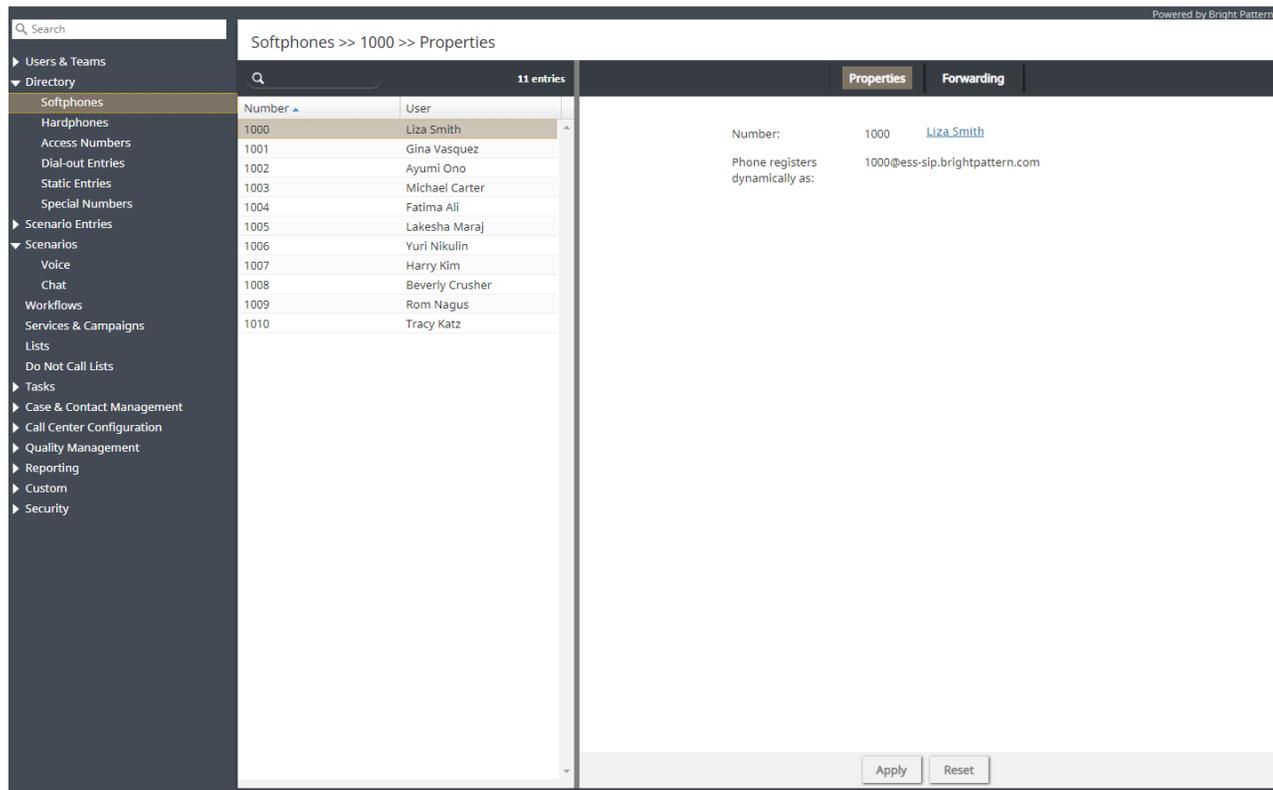
Note that computers of users of the Agent Desktop application must conform to a number of [system requirements](#).

To view the current extension number assignment, get the real-time softphone status, and set up call forwarding options, select the **Softphones** option from the **Directory** menu.

Screen Properties

The **Softphones** screen properties are organized into two tabs--Phone and Forwarding--which are described as follows.

Phone tab



The screenshot displays the 'Softphones >> 1000 >> Properties' screen. The interface includes a search bar, a navigation menu on the left, and a main content area with two tabs: 'Properties' and 'Forwarding'. The 'Properties' tab is active, showing the following details:

Number	User
1000	Liza Smith
1001	Gina Vasquez
1002	Ayumi Ono
1003	Michael Carter
1004	Fatima Ali
1005	Lakesha Maraj
1006	Yuri Nikulin
1007	Harry Kim
1008	Beverly Crusher
1009	Rom Nagus
1010	Tracy Katz

Below the list, the 'Properties' tab shows the following configuration for extension 1000:

- Number: 1000 [Liza Smith](#)
- Phone registers dynamically as: 1000@ess-sip.brightpattern.com

At the bottom of the screen, there are 'Apply' and 'Reset' buttons.

Number

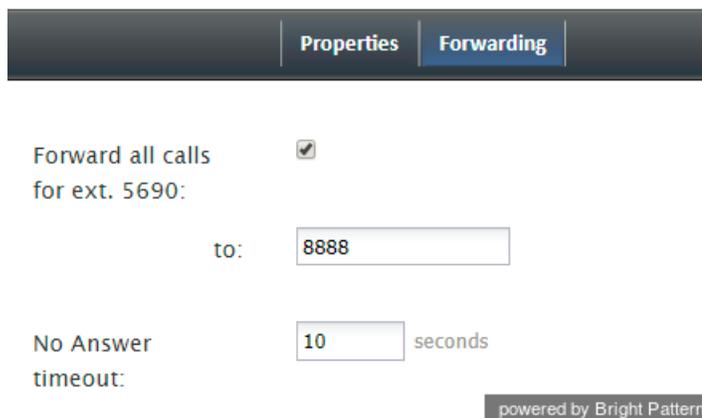
Number is the softphone extension number. This is a read-only parameter that also shows the first and last name of the user who is currently assigned to this extension number. If you wish to assign a different extension number to the user, click the username.

Phone registers dynamically as

The *Phone registers dynamically as* property is the unique softphone registration name consisting of the extension number and your tenant access domain name. This parameter is read-only.

Note: The Session Initiation Protocol (SIP) registration mechanism is used for detection of softphone connection problems. If the softphone cannot register with the SIP server upon login, or if the softphone loses connection after a successful initial registration, the following [error message](#) will be displayed on the Agent Desktop: *SIP phone has lost connection with the system*. Softphones refresh registration every 15 seconds. On the SIP server side, the timeout for registration renewal is set to 30 seconds. Thus, there may be up to a 15-second delay between loss of connection and the display of the error message.

Forwarding tab



The screenshot shows a configuration interface with two tabs: 'Properties' and 'Forwarding'. The 'Forwarding' tab is active. It contains the following settings:

- Forward all calls for ext. 5690:** A checkbox is checked.
- to:** A text input field containing the value '8888'.
- No Answer timeout:** A text input field containing the value '10', followed by the text 'seconds'.

At the bottom right of the interface, there is a small grey box with the text 'powered by Bright Pattern'.

Softphone Forwarding properties

Call forwarding settings

The *Forwarding tab* contains call forwarding settings related to the softphone extension. The same settings appear in the [configuration of the user](#) to whom the softphone extension is assigned.

Hardphones

A hardphone is a telephony device designed specifically for handling telephone calls. Unlike softphones, whose extensions are defined by users who are currently logged on, hardphones have their own extension numbers. In Bright Pattern Contact Center, the association between a user and a hardphone number is typically established when, while logging into the Agent Desktop application, the user selects option *An internal phone* for the [phone device](#) setting and specifies a hardphone number. Such an association is maintained for the duration of the login session. After the user logs out, another user can log in with the same hardphone device following the same login procedure.

For users who have permanently assigned hardphones installed at their personal desks, another type of association can be established where such a phone is assigned as a default hardphone number in the user's configuration (see section *Users*, property *Default hardphone number*). In this case, the user will select option *Default number* for the phone device setting when logging in.

After hardphones have been created in the Bright Pattern Contact Center configuration, the hardphone devices themselves shall be configured with the corresponding extension numbers and registered with the system.

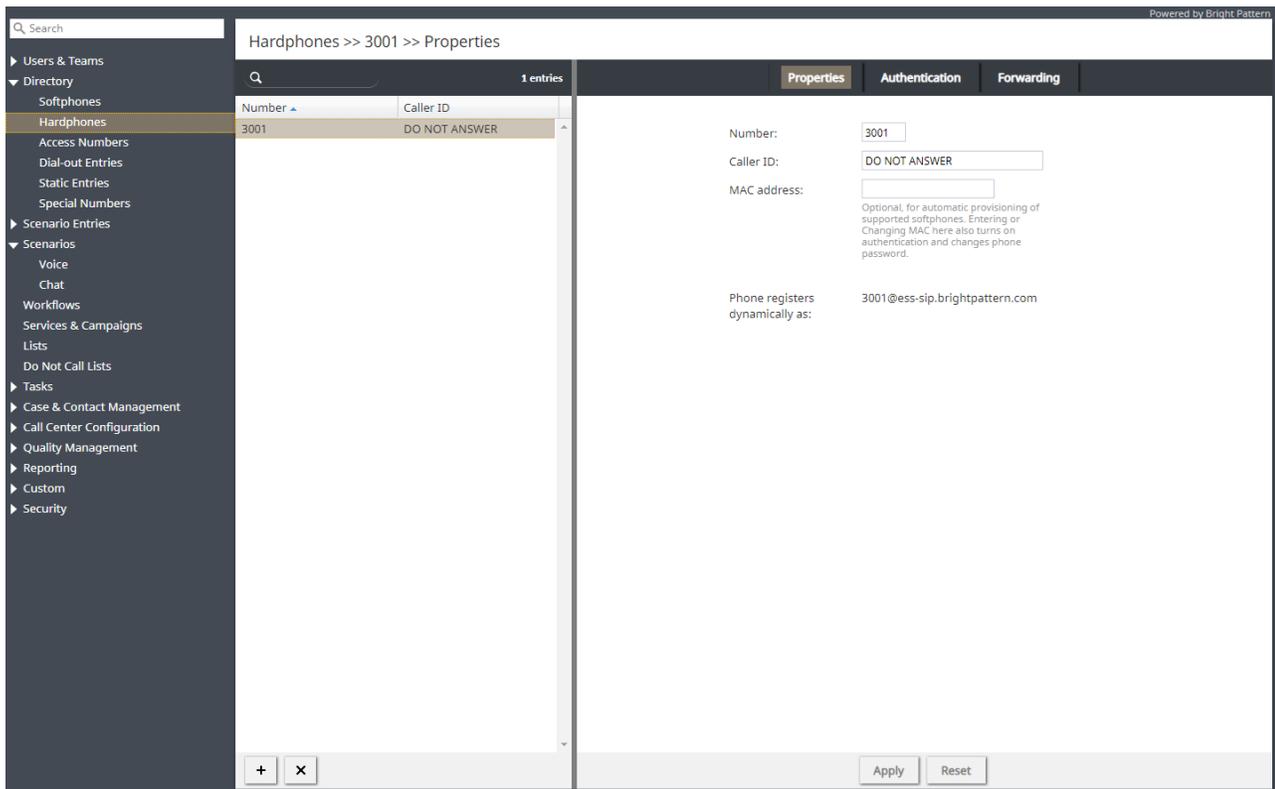
Requirements

Note that we require hardphones to implement the Broadworks SIP Access Side Extensions Interface for third-party call control in order for hold and auto-answer on dial out to work. For more information, see the [Broadworks SIP Access Side Extensions Interface Specifications](#).

Configuration and Setup

For manual hardphone set up procedures, refer to the documentation provided with your hardphone devices. Bright Pattern Contact Center also supports automatic provisioning for Polycom IP phones (see option *Phone MAC address* below for more information).

To configure hardphones, get their real-time status, and set up their call forwarding options, select the **Hardphones** option from the *Directory* menu.



Directory > Hardphones

Screen Properties

The *Hardphones* screen properties are organized into three tabs: Phone, Authentication, and Forwarding. Their configuration settings are described as follows.

Phone tab

Number

Number is the hardphone extension number. This mandatory field must be unique within the contact center. Note that if you use both softphones and hardphones in your contact center, the uniqueness must be observed within the entire range of extension numbers, including the ones assigned to [softphones](#).

Caller ID

Caller ID is the name that will be displayed to other users when they receive calls from this phone.

MAC address

MAC address is the unique identifier of the hardphone device on the physical network. This parameter is optional and is used for possible automatic provisioning of supported hardphone models. Entering or changing the MAC address will automatically enable authentication and will require a new password for the phone (see screen *Authentication* below.)

Phone registers dynamically as

Phone registers dynamically as is the unique hardphone registration name consisting of the extension number and tenant access domain name.

Authentication tab

Username

Username is the username for authentication of the hardphone. This field is mandatory.

New Password

New Password is used to change the selected hardphone's password. Enter the new password here.

Confirm password

Confirm password is the mandatory password confirmation field.

Generate password

Use this button to let the system generate a random password for the hardphone. Note that the generated password will be displayed in clear text only until you close the pop-up window. Thus, you should note and communicate it to the hardphone's user immediately upon generation. The password will be masked for any subsequent display attempts.

Forwarding tab

General information

The *Forwarding* tab contains call forwarding settings related to the hardphone extension. These settings are applied regardless of whether users log in with the hardphone temporarily or whether it is used as someone's permanent (default) hardphone.

Forward all calls for ext...

Forward all calls for ext... indicates whether call forwarding is activated for the hardphone extension.

to

This field is for the phone number to which incoming calls will be forwarded. It must be specified if the *Forward all calls to ext...* checkbox is selected.

Forward No Answer timeout

Forward No Answer timeout is the time (in seconds) after which incoming calls will be forwarded to the number specified if the user is logged on and does not answer. The amount of time must be specified if the *Forward all calls to ext...* checkbox is selected. For immediate (unconditional) forwarding, set the timeout to 0.

If the user is unreachable (busy or logged out), incoming calls will be forwarded to the specified number immediately, regardless of this setting.

Access Numbers

Access numbers are the telephone numbers of your contact center that can be accessed from the public telephone network. These numbers are initially configured and assigned to your contact center at the service provider level. With the Contact Center Administrator application, you can view the available external access numbers and associate them with scenarios, which define how calls arriving at these numbers will be processed by the system. Such associations are called [dial-in scenario entries](#).

You can also associate external access numbers with specific extension numbers of your contact center. In this case, all calls arriving at the external number will be delivered directly to the associated extension. This functionality is called *Direct Inward Dialing (DID)*.

Access numbers can, and in some cases must, be used as caller IDs for regular outbound calls, campaign calls, and outgoing SMS communications. For more information about configuring caller IDs for regular outbound calls, see section [Dial-out Entries](#). For more information about configuring caller IDs for campaign calls and SMS messages, see section [Service and Campaigns - Numbers Tab](#).

Access numbers are also used in chat services to enable customers to request and carry on chat conversations via SMS. For more information about enabling inbound SMS function in chat services, see section [Messaging/Chat](#).

To view the available access numbers, select the **Access Numbers** option from the **Directory** menu.

The screenshot displays the 'Access Numbers' configuration page. On the left, a table lists two entries:

Number	Internal	Type	Details
415-655-8090	8002	extension	
800-808-2134		scenario	Support-Service

The right side of the interface shows the configuration for the selected number, 800-808-2134. The configuration includes:

- Destination:** Radio buttons for scenario, extension, and unassigned.
- Name:** Text input field containing 'Main access'.
- Scenario:** Dropdown menu set to 'Support-Service' with an 'add/edit' link.
- Service:** Dropdown menu set to 'Support for CSIM' with an 'add/edit' link.
- Internal numbers:** 'add' link.
- External numbers:** '800-808-2134' with an 'add' link.
- Requested skills:** 'add' link.
- Queueing priority:** Text input field containing '1'.
- Hours of Operation:** Radio buttons for from service, select, and specify. Below this, it states: 'Hours of operation will be taken from the service that is active at the moment.'
- Visible to agents:** Checkable checkbox, currently unchecked.
- Directory folder:** Dropdown menu.

A 'powered by Bright Pattern' logo is visible in the bottom right corner of the configuration area.

Directory > Access Numbers

All access numbers assigned to you by the service provider will appear in the list view. Numbers dedicated to SMS communications will appear in the *[number]/SMS* format.

Access number types displayed in the list view have the following meanings:

- If an access number is associated with an extension, its type will be set to *extension*, the extension number will

appear in column *Internal*, and the user of that extension will appear in column *Details*.

- If a regular or SMS access number is associated with a scenario entry, its type will be set to *scenario*, and the scenario name will appear in column *Details*.
- If an SMS number is associated with a service, its type will be set to *text out*.
- If an SMS number is associated with both a scenario entry (for inbound SMS) and a service (for outbound SMS), its type will be set to *scenario, text out*.
- Access numbers that do not have any associations will have type *unassigned*.

How to Associate a Selected Access Number with a Scenario

1. Set the *Destination* property to **scenario**.
2. Edit the [dial-in scenario entry properties](#) that will appear in the right pane.

How to Associate a Selected Access Number with an Extension (the DID Function)

1. Set the *Destination* property to **extension**.
2. Specify the extension number in the field **Extension**.

If the specified extension is a [softphone](#), the name of the associated user will appear next to the entered number. If the specified extension is a [hardphone](#), the internal *Caller ID* of the hardphone will appear.

By default, access numbers used as caller IDs will be transmitted exactly as they appear in the list view of the *Access Numbers* screen.

How to Attach a Prefix to an Access Number When It Is Used As a Caller ID

1. Select the **Add prefix to all caller IDs** checkbox.
2. Enter the desired digits in the **Prefix** field.

Note that the use of access numbers as caller IDs for campaign calls must be enabled at the service provider level. Where such use is restricted, the property pages of the corresponding access numbers will display a read-only parameter *Restrictions* set to *No automated outbound dialing on this number*.

For DID purposes, a range of numbers may be assigned to your contact center at the service provider level. The range will appear in the list view as the starting number followed by the number of numbers in the range in parentheses. Note that such numbers cannot be used for dial-in scenario entries.

How to Associate a Range of Access Numbers with a Range of Extensions

1. Set the *Destination* property to **extension**.

2. Specify the first extension number of the desired range in the field **Extension**.

Association of subsequent extensions in the range will happen automatically.

Dial-out Entries

Dial-out entries define how outbound calls are made from the extensions of your contact center. The system recognizes a call as an outbound call by analyzing the first digit (or a set of digits) of the dialed number. Dial-out entries are also used to indicate services that will be associated with such outbound calls by default and to configure caller ID(s) for these calls.

Note the following:

- In order for the *Use customer number on transfers and consult calls* feature to work, the capability to transfer calls with the original calling party numbers must be enabled for your account. You can determine whether the capability is enabled for your account by looking for the *Use customer number on transfers and consult calls* checkbox (see below) on the Dial-out Entries screen properties pane. If you do not see it, contact your service provider for assistance.
- Before configuring your caller IDs, be sure to check all legal requirements and restrictions for what can be sent as a caller ID in the jurisdictions where you operate.

To configure a dial-out entry in the Contact Center Administrator application, navigate to *Configuration > Directory > Dial-out Entries*.

Digits:
 Is a prefix (not a complete number):
 Remove prefix:
 Insert prefix:
 Set service (if not set by agent): [add/edit](#)
 Transfer trunk trombone calls using SIP REFER:

Caller ID selection (by diminishing priority)

Use customer party number on transfers and consult calls (if available):
 Direct mapping of internal phones: [edit](#)
 Use Caller ID from service configuration if service information is available, otherwise use this number:
 Append *<extension> to caller ID:

Directory > Dial-out Entries

Dial-Out Entries

The *Dial-out Entries* screen properties are described as follows.

Digits

Digits are the numeric digits which, when dialed from an extension of your private telephone network, will indicate that an outbound call is requested. This set of digits can contain a leading plus (+) sign indicating international calling. This parameter is mandatory and must be unique within the contact center.

Is a prefix

Is a prefix indicates whether the above number is a prefix used only within your private telephone network, as opposed to being part of the PSTN number.

Remove prefix

Remove prefix indicates whether the digit(s) specified in parameter *Digits* shall be removed before transmitting the dialed number outside of your private telephone network.

Insert prefix

Insert prefix represents a set of digits (e.g., "011" for international calls) to be prepended to the number before transmitting the dialed number outside of your private telephone network. The digits can contain a leading plus (+) sign indicating international calling.

Set service

Set service is where you set the service associated with the specified *Number*. Association of outbound calls with services is optional and is useful when you want to be able to count separately calls made with respect to different services (e.g., for reporting and/or billing purposes).

Note that an outbound call can also be associated with a service via selection of the desired service directly from the Agent Desktop application. In case of a conflict, the service explicitly selected by the agent overrides the service defined by this setting. For more information, see section [How to Make an Outbound Call](#) of the *Agent Guide*.

Transfer trunk trombone calls using SIP REFER

If this option is selected, then when a call comes in to your contact center and the agent wants to make a transfer, and if the SIP provider supports SIP REFER, and if the call is making it back through the same provider, *then* a SIP REFER message is sent to your provider and the call is directed by the provider to the destination.

Use customer party number on transfers and consult calls

This option indicates whether a customer's number of original service calls, if available, will be used as the Caller ID for associated outbound calls (i.e., external consultation calls, two-step and blind transfers, and calls forwarded to external destinations via scenarios) made via this dial-out entry. If this option is enabled, the Caller ID of the original call will be relayed regardless of whether such an original call is inbound, regular outbound, or a campaign call.

Note: This option must be explicitly enabled by your service provider before it can be used in your contact center. If this option is not enabled by the service provider, the Caller ID will be set according to one of the following methods.

Direct mapping of internal phones

Direct mapping of internal phones allows you to select the extensions for which their personal caller IDs will be displayed when making outbound calls via this dial-out entry. Usually these are the DID extensions with direct external [access numbers](#) assigned to them. To select such extensions, click **edit**.

This option will be disregarded for the cases where the above setting applies.

Use Caller ID from service configuration if service information is available, otherwise use this number

This option specifies the number that will be displayed to called parties when they receive a call made through this dial-out entry, unless a service was selected manually for this call (see description of property *Set service* above).

If a service was selected manually for an outbound call, one of the numbers specified as a caller ID for the selected service will be displayed. For more information, see section [Services and Campaigns - Numbers Tab](#).

This option will be disregarded for the cases where either of the above two settings applies.

Append **<extension>* to caller ID

This setting allows you to append the user's extension to the access number selected in this dial-out entry as the calling party number. This setting will append the extension as well as the * symbol, which will be placed between the number and the extension. Note that this setting is relevant for tenant PBX trunks that connect to cloud PBX systems.

Static Entries

Static entries describe names and contacts of people/organizations that are external to your contact center. These entries appear in the [directory](#) of the Agent Desktop application. Usually these are the people/organizations that the agents of your contact center may need to call (e.g., for consultation purposes).

For convenience, related static entries are arranged in folders. By default, agents are able to see static entries in all folders that are defined here. You can select specific folders that the agents of a particular team will be able to see via the [Team properties](#).

Note that caller IDs of inbound calls can be checked against the telephone numbers of configured static entries, and the corresponding static entry names can be displayed to agents instead of the caller ID numbers. For more information, see section [Search Directory](#) of the *Scenario Builder Reference Guide*.

To configure a static entry, select the **Static Entries** option from the *Directory* menu.

Name:	<input type="text" value="St. Petersburg branch"/>
Type:	<input type="text" value="Voice"/> ▼
Destination:	<input type="text" value="78124304144"/>
Directory folder:	<input type="text" value="Overseas office"/> ▼ add/edit

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Directory > Static Entries

Static Entries Screen Properties

The *Static Entries* screen properties are described as follows.

Name

Name is the name of the static entry as it shall appear in the Agent Desktop directory. This field is mandatory.

Type

Type is the destination type. For phone contacts, select **Voice**. For email contacts, select **Email**.

Destination

For entry of the *Voice* type, *Destination* is the destination's phone number. For entry of the *Email* type, *Destination* is the destination's email address.

Note that if the destination is an IVR, the phone number can include pauses and digits required to get to the desired contact or self-service option. Comma symbols are used for pauses; each comma will delay dialing of the next digit by one second (e.g., 18005552222,,,5,,245). For more information, see the *Agent Guide*, section [How to Speed-Dial Through External IVRs](#).

Directory folder

Directory folder is the folder of the [Agent Desktop directory](#) where this static entry will appear. You can select an existing folder or create a new one.

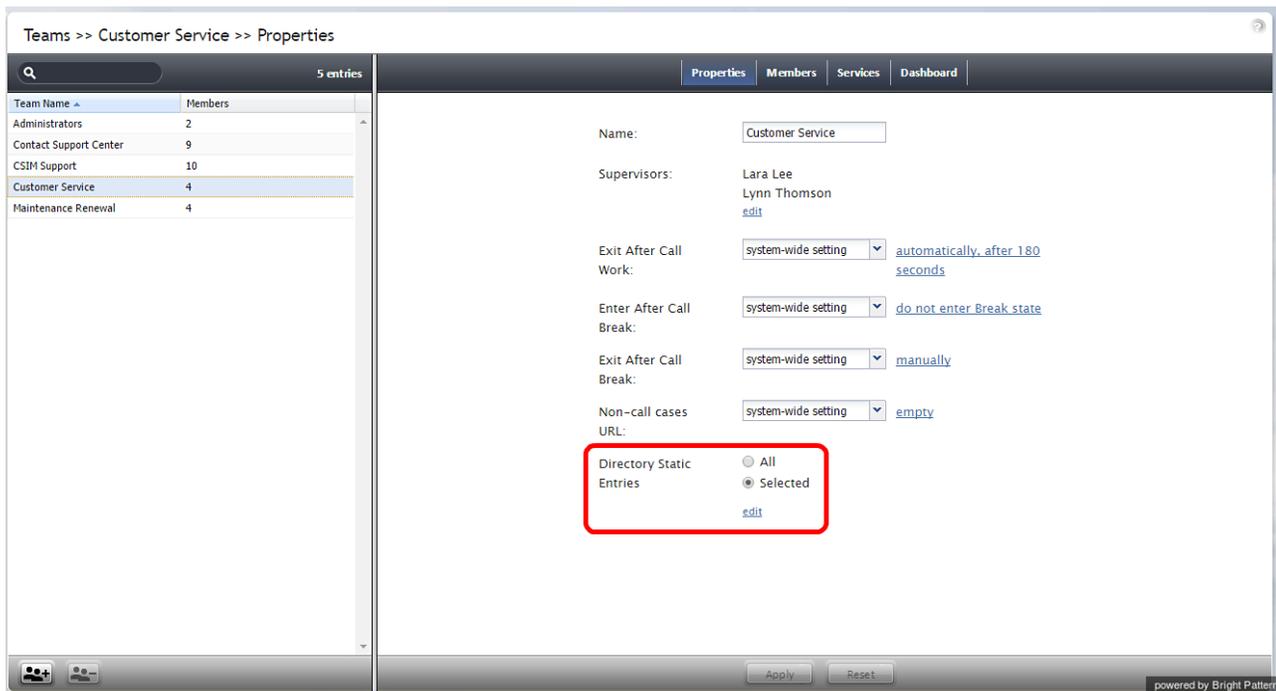
Limiting Static Entries

Teams can view either all static entries in the directory or selected static entries only. By limiting *Directory Static Entries*, you control who can view particular *static entries* (i.e., the names and contacts of people/organizations that are external to your contact center) that appear in the [directory](#) of the Agent Desktop application. As noted in the Static Entries section, these entries are usually the people/organizations that the agents of your contact center may need to call (e.g., for consultation purposes).

Static entries are limited at the team level, not the user level. You can limit the static entries visible to a *Team* that contains one or more users, but you cannot limit the static entries visible to a single user.

Step 1: Update team information.

- Go to the *Configuration* panel on the left-hand side of the Agent Desktop application.
- Navigate to *Users & Teams* and click **Teams**.
- Select a **Team Name** from the list shown.
- From the *Properties* tab, locate the property *Directory Static Entries*. *There are two options: All or Selected. This is where you limit the directory static entries visible to a team. All allows the team users to view all static entries in the directory. Selected sets the specific static entries that are visible to the team.*

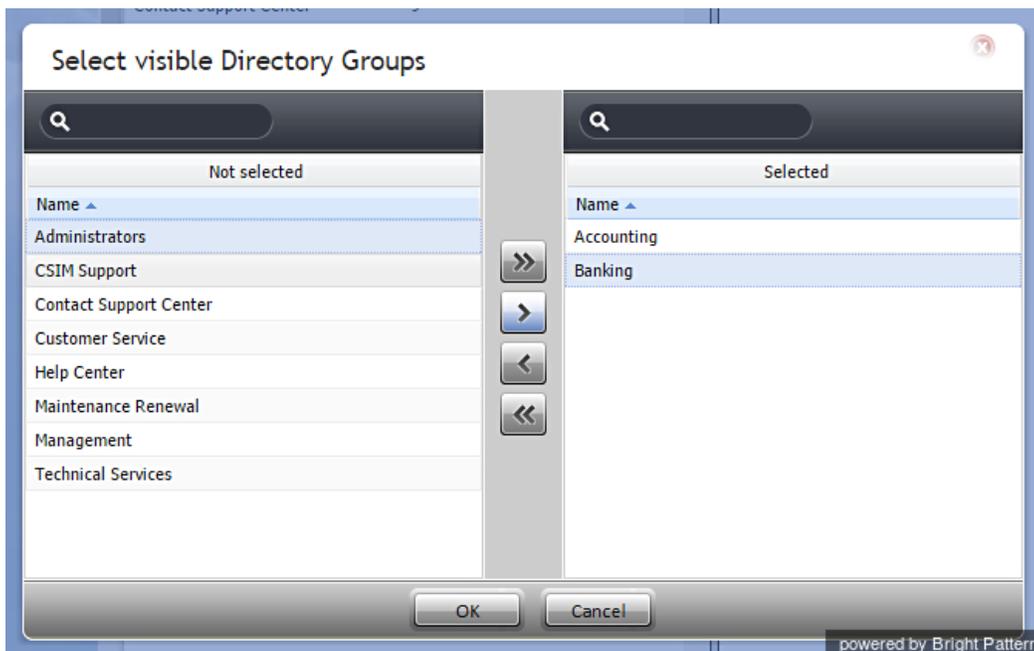


Step 2: Edit selected static entries.

- To limit which static entries are visible to the team, choose **Selected** and click **edit**.
- On the left-hand panel, **Not Selected**, click a **Directory Group** to highlight it, and use the arrow controls to move the desired directory group to the right-hand panel, **Selected**.

The >> and << controls move all items left or right, whereas the > and < controls move a single item left or right.

In the example image shown, the properties for a team called Maintenance Renewal are being modified. Two directory groups, Accounting and Banking, have been moved to **Selected**. After hitting OK, the members of that team will be able to see only Accounting and Banking static entries when they browse the directory on their Agent Desktop application.



As shown, the Maintenance Renewal team's properties now indicates the directory static entries that are visible to the team. From the Agent Desktop application, members of the Maintenance Renewal team can view only Accounting and Banking groups in the directory.

Special Numbers

Special numbers are the PCI-compliant numbers of people/organizations that are external to your contact center. Unlike static entries, these numbers are stored in the [directory](#) of the Agent Desktop application, but they are not shown to agents at all. Special numbers are activated for external IVRs when a *special number* matches the number dialed by an agent after any prefix-manipulation by dial-outs is done and any special prefixes (e.g., suppress ANI) are removed.

Name:	<input type="text" value="Group 1"/>
Number:	<input type="text" value="4151234567"/>
Mute IVR toward agent when conferenced:	<input type="checkbox"/>
Mute DTMF toward agent when conferenced:	<input type="checkbox"/>

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Directory > Special Numbers

Special Numbers Screen Properties

The *Special Numbers* screen properties are described as follows.

Name

Name is the name of the special number. This field is mandatory.

Number

Number is the phone number without any dial-out prefixes or billing codes. This field is mandatory.

Mute IVR toward agent when conferenced

Select this checkbox if you do not wish the agent to hear the IVR menu when the agent is on a conference call.

Mute DTMF toward agent when conferenced

Select this checkbox if you do not wish the agent to hear the dual tone multi frequency (DTMF) touchtones when the agent is on a conference call.